CLAIMS

What is claimed is:

1. A method for a receiver to detect a need to implement a filter to a multicast program, the method comprising:

> examining a connection from a client machine;
>
> retrieving a filter parameter for the connection; and
>
> implementing the filter parameter as a filter for a multicast program.

2. The method according to claim 1 wherein the receiver is integrated with the client machine.

3. The method according to claim 1 wherein examining a connection further comprises examining a user datagram protocol (UDP) port.

4. The method according to claim 1 wherein the connection from a client machine is used to determine the filter parameter to be retrieved.

5. The method according to claim 1 wherein the filter parameter comprises a program identifier.

6. The method according to claim 1 wherein the receiver is a Digital Video Broadcast – Terrestrial receiver.

7. A method for a receiver to detect a need to remove a filter for a multicast program, the method comprising:

> examining a filter;
>
> determining a connection the filter is associated with;
>
> examining a plurality of connections from a client machine;
>
> removing the filter if the connection from the client machine does not

correspond to the connection the filter is associated with.

8. The method according to claim 7 wherein the receiver is integrated with the client machine.

9. The method according to claim 7 wherein examining a connection further comprises examining a user datagram protocol port.

10. The method according to claim 7 wherein determining further comprises determining whether there is a connection to the client machine.

11. The method according to claim 7 wherein the receiver fetches a filter parameter from a table containing service information.

12. A method for a receiver to detect a need to implement a filter for a multicast program, the method comprising:

> examining a message received from a client machine;

> retrieving a filter parameter for a connection to the client machine; and

> implementing the filter parameter as a filter for a multicast program.

13. The method according to claim 12 wherein the receiver is integrated with the client machine.

14. The method according to claim 12 wherein the receiver is a Digital Video Broadcast – Terrestrial receiver.

15. A method for a receiver to detect a need to remove a filter for a multicast program, the method comprising:

> examining a message received from a client machine;

> retrieving a filter parameter for a connection to the client machine; and

> removing a filter based on the filter parameter.

16. The method according to claim 15 wherein the message is an IGMP message.

17. The method according to claim 15 wherein the receiver fetches the filter parameter from a table containing service information.

18. A method for managing a filter, the method comprising:

      detecting an IGMP packet containing an instruction to join or leave a multicast group, said IGMP packet being associated with an entry in a table;

      removing a filter based on a filter parameter associated with the entry in the table that corresponds to the IGMP message having the instruction to leave a multicast group; and

      adding a filter based on a filter parameter associated with the entry in the table that corresponds to the IGMP packet having the instruction to enter a multicast group.

19. A method for managing a filter in a system having a service information table (SIT) comprising a plurality of entries, each entry having a port number and a filter parameter, and a User Datagram Protocol (UDP) Listener Table comprising a plurality of entries, each entry having a port number and an local internet protocol (IP) address, the method comprising:

      comparing each entry in a UDP Listener Table to each entry in a SIT;

      determining a filter parameter of a first type of entry, wherein the first type of entry is present in the UDP Listener Table and not present in the SIT;

      implementing a filter parameter of the first type of entry as a first filter;

      determining the filter parameter of a second type of entry that is present in the SIT and not present in the UDP Listener Table;

      removing a second filter based on the filter parameter of the second type of entry.

20. The method according to claim 19 wherein the UDP Listener Table entry is identified as a multicast address by the local IP address.

21. A method for creating a filter for data at a multicast receiving node, the method comprising:

detecting a multicast data connection;

associating the data connection with a filter parameter;

creating a socket;

binding the socket to a port number;

fetching the filter parameter; and

accepting data from the data connection,

wherein said data is processed based on the filter parameter.

22. The method according to claim 21 wherein the multicast receiving node includes a Digital

Video Broadcast – Terrestrial receiver.

23. The method according to claim 22 wherein fetching further comprises examining a table

containing service information.

24. A method for removing a filter for data at a multicast receiving node, the method

comprising:

detecting a data connection being closed;

associating the data connection with a filter parameter;

leaving a multicast group;

fetching the filter parameter;

removing a filter based on the filter parameter.

25. The method according to claim 24 wherein detecting further comprises continuously

polling the user datagram protocol (UDP) Listener Table.

26. The method according to claim 25 wherein polling the UDP Listener Table further

comprises identifying multicast data from the UDP Listener Table.

27. A method for activating a data filter in a Digital Video Broadcast – Terrestrial system

having a service information table (SIT) comprising an entry having a filter parameter

and a filter status, said system transmitting an IGMP message, the method comprising:

detecting a IGMP message;

retrieving a filter parameter from an SIT;

activating a filter based on the filter parameter; and

changing a filter status in the SIT.

28. A method for removing a data filter in a Digital Video Broadcast – Terrestrial system

having a service information table (SIT) comprising an entry having a filter parameter, a

User Datagram Packet (UDP) port number, and a filter status, said system also having a

UDP Listener Table comprising an entry having a UDP port number and a local internet

protocol (IP) address that indicates that said entry is a multicast connection, the method

comprising:

polling a UDP Listener Table;

correlating a UDP entry with an SIT entry;

identifying an SIT entry having an active status as the filter status;

removing a data filter corresponding to a filter parameter of the identified SIT

entry; and

changing the filter status of the SIT entry.

29. An article of manufacture for managing a filter in a Digital Video Broadcast – Terrestrial

system having a service information table (SIT) comprising an entry having a filter

parameter, and transmitting an IGMP packet containing a multicast group address and an

instruction, the article comprising:

a computer readable medium including instructions for:

detecting the IGMP packet with the instruction to join or leave a

multicast group;

removing the filter for the SIT entry that corresponds to the IGMP

packet having the instruction to end a subscription; and

- 14 -

adding the filter for the SIT entry that corresponds to the IGMP packet having the instruction to begin a subscription.

30. An article of manufacture for managing a filter in a Digital Video Broadcast - Terrestrial system having a service information table (SIT) comprising an entry having a port number and a filter parameter, and a user datagram protocol (UDP) Listener Table comprising an entry having a port number and an internal internet protocol (IP) address, the article comprising:

a computer readable medium including instructions for:

finding the SIT entry that corresponds to the UDP entry having the local IP address associated with the port number of a multicast connection.;

removing the filter that contains the filter parameter corresponding to the SIT entry with which there is no UDP entry associated; and

activating the filter for the filter parameter that is in both tables and for which the filter is not applied.

31. The method according to claim 1 wherein the method is implemented in a wireless handheld terminal.

32. The method according to claim 18 wherein the method is implemented in a wireless handheld terminal.

33. The method according to claim 21 wherein the method is implemented in a wireless handheld terminal.

34. The method according to claim 28 wherein the method is implemented in a wireless handheld terminal.